

CLAIMS

What is claimed is:

1. A method of welding comprising the steps of:
providing an axle housing surface;
5 providing a blank surface;
generating heat from at least one of these surfaces at their interface sufficient to
weld the surfaces together; and
applying the surfaces together.
- 10 2. The method of claim 1 wherein the heat is generated by electric discharge
between the surfaces.
3. The method of claim 2 wherein the electric discharge results from creating an
electric potential between the surfaces and moving the surfaces in proximity to each other
15 to effect the electric discharge.
4. The method of claim 3 further including the step of moving the surfaces apart,
creating another electric potential between the surfaces, moving the surfaces in
proximity to each other to effect the electric discharge between the surfaces, and
20 applying the surfaces together.
5. The method of claim 4 repeated until the surfaces are sufficiently welded
together.
- 25 6. The method of claim 1 wherein the heat is generated by friction between the
surfaces.

7. The method of claim 6 wherein the friction is created by moving one surface translationally relative to the other surface.

8. The method of claim 6 wherein the friction is created by moving one surface
5 rotationally relative to the other surface.

9. The method of claim 1 wherein the axle housing surface is curved.

10. The method of claim 1 wherein the blank surface is a snorkel.

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11. A product made by a process comprising the steps:
providing an axle housing surface;
providing a blank surface;
generating heat from at least one of these surfaces at their interface sufficient to
5 weld the surfaces together; and
applying both surfaces together.
12. The product of claim 11 wherein the heat is generated by electric discharge
between the surfaces.
- 10 13. The product of claim 12 wherein the electric discharge results by creating an
electric potential between the surfaces and moving the surfaces in proximity to each other
to effect the electric discharge.
- 15 14. The product of claim 13 further including the step of moving the surfaces
apart, creating another electric potential between the surfaces, moving the surfaces in
proximity to each other to effect the electric discharge between the surfaces, and
applying the surfaces together.
- 20 15. The product of claim 14 repeated until the surfaces are sufficiently welded
together.
16. The product of claim 11 wherein the heat is generated by friction between the
surfaces.
- 25 17. The product of claim 16 wherein the friction is created by moving one surface
translationally relative to the other surface.

18. The product of claim 16 wherein the friction is created by moving one surface rotationally relative to the other surface.

19. The product of claim 16 wherein the axle housing surface is curved.

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20. The product of claim 16 wherein the blank surface is a snorkel.